

# EXHIBIT 10



fw)

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/954,755	09/30/2004	Jialin Zou	LUCW:0015 Kong 11-6	4332
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FLETCHER YODER (LUCENT)			EXAMINER	
P.O. BOX 692289			LIM, STEVEN	
HOUSTON, TX 77069				
			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/954,755

Applicant(s)

ZOU ET AL.

Examiner

Steven Lim

Art Unit

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-3, 5-12 and 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gholmieh et al. (US 20030129989) in view of Lau et al. (US 20040151122).

4. Regarding Claims 1 and 10, Gholmieh et al. discloses generating quality metrics from a decoding process (Paragraph 17) for a received channel quality indicator, including short term quality metrics (power level, Paragraph 19) and long term quality metrics (data rate, Paragraph 19) and adjusting CQI channel configuration (setting data rate and power level through a modulator, Paragraph 24) however, Gholmieh et al. fails

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to disclose comparing the quality metrics to a quality setting and determining whether to dynamically adjust a CQI channel configuration based on the comparison.

In an analogous art, Lau et al. discloses comparing a metric (encoded packet error rate) against a quality setting (threshold) and based on this comparison adjusting a CQI channel configuration (data rate, Paragraph 30), which enables changes in the system based on received information.

It would have been obvious to one having ordinary skill in the art at the time of invention was made to compare a metric against a quality setting and then adjusting CQI channel configuration in order to allow the system to react to changes in the system's environment.

5. Regarding Claims 2 and 11, Gholmieh et al. further discloses that a R-CQICH has two modes of operation including a full and differential mode (Paragraph 31), however Gholmieh et al. fails to disclose comparing the long term quality metric to a quality setting.

In an analogous art, Lau et al. discloses comparing a metric (encoded packet error rate) against a quality setting (threshold, Paragraph 30), which enables changes to occur when the system is performing out of normal bounds.

It would have been obvious to one having ordinary skill in the art at the time of invention was made to compare a metric against a quality setting in order to allow the system to react to changes in the system's environment.

6. Regarding Claims 3 and 12, Gholmieh et al. further discloses that the CQI channel configuration comprises a reverse link outer loop power control setting (reverse

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link power level, Paragraph 18), however Gholmieh et al. fails to disclose comparing the short-term quality metric to a quality setting.

In an analogous art, Lau et al. discloses comparing a metric (encoded packet error rate) against a quality setting (threshold, Paragraph 30), which enables changes to occur when the system is performing out of normal bounds.

It would have been obvious to one having ordinary skill in the art at the time of invention was made to compare a metric against a quality setting in order to allow the system to react to changes in the system's environment.

7. Regarding Claims 5 and 14, Gholmieh et al. further discloses generating the short-term quality metrics by accumulating a plurality of quality information from the decoding process over a CQI frame (puncturing of R-CQICH may be for several time slots in a time frame where each time slot may have a different power level, Paragraph 31).

8. Regarding Claims 6 and 15, Gholmieh et al. further discloses generating the long term quality metrics by filtering the plurality of quality metrics over a period of more than one frames (puncturing of R-CQICH during eight time frames, Paragraph 31).

9. Regarding Claim 7, Gholmieh et al. further discloses generating a plurality of erasures for differential reports based on CQI differential bit decision metric (negative increment value of most recently transmitted full CQI value becomes current CQI, Paragraph 19).

10. Regarding Claims 8 and 16, Gholmieh et al. further discloses performing the method at a base station in a wireless communication system (Paragraph 16 and 19).

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11. Regarding Claim 9, Gholmieh et al. further discloses transmitting an adjustment for the CQI channel configuration to a wireless unit (base station packet data including data rate and power levels of the reverse and forward links transmitted to the mobile station, Paragraph 18).

12. Regarding Claim 17, Gholmieh et al. discloses generating quality metrics from a decoding process (Paragraph 17) for a received channel quality indicator, including short term quality metrics (power level, Paragraph 19) and long term quality metrics (data rate, Paragraph 19) and adjusting a reverse link outer loop power control setting (reverse link power level through a modulator, Paragraph 18 and 24) however, Gholmieh et al. fails to disclose comparing the quality metrics to a quality setting and determining whether to dynamically adjust a CQI channel configuration based on the comparison.

In an analogous art, Lau et al. discloses comparing a metric (encoded packet error rate) against a quality setting (threshold) and based on this comparison adjusting a CQI channel configuration (data rate, Paragraph 30), which enables changes in the system based on received information.

It would have been obvious to one having ordinary skill in the art at the time of invention was made to compare a metric against a quality setting and then adjusting CQI channel configuration in order to allow the system to react to changes in the system's environment.

13. Regarding Claim 18, Gholmieh et al. further discloses that a R-CQICH has two modes of operation including a full and differential mode (Paragraph 31).

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14. Regarding Claim 19, Gholmieh et al. further discloses transmitting an adjustment for the CQI channel configuration to a wireless unit (base station packet data including data rate and power levels of the reverse and forward links transmitted to the mobile station in order to maintain channel conditions, Paragraph 18).

15. Regarding Claim 20, Gholmieh et al. further discloses generating the long-term quality metrics by filtering the plurality of quality metrics over a period of more than one frames (puncturing of R-CQICH during eight time frames, Paragraph 31).

16. Claims 4 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gholmieh et al. (US 20030129989) and Lau et al. (US 20040151122) as applied to claims 1 and 10 above, and further in view of Yun et al. (US 20030206541).

17. Regarding Claims 4 and 13, Gholmieh et al. decoding a received channel CQI, however Gholmieh et al. fails to disclose the CQI channel configuration comprises a repetition factor and the comparison comprises comparing one of the long-term quality metrics to the quality setting.

In an analogous art, Yun et al. discloses a CQI channel configuration including a repetition factor (Paragraph 46), which enables an accurate detection of the switching intention of a mobile station (Paragraph 53).

In an analogous art, Lau et al. discloses comparing a metric (encoded packet error rate) against a quality setting (threshold, Paragraph 30), which enables changes to occur when the system is performing out of normal bounds.



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It would have been obvious to one having ordinary skill in the art at the time of invention was made to include a repetition factor in the CQI channel configuration to allow proper switching of a mobile station from one base station to another and to compare a metric against a quality setting in order to allow the system to react to changes in the system's environment.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Lim whose telephone number is (571) 270-1210. The examiner can normally be reached on Mon-Thurs 9:00am-4:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571)272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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LESTER G. KINCAID  
SUPERVISORY PRIMARY EXAMINER